

REMARKS**SUMMARY:**

Claims 1-8, 10-18, 20-28, and 30 stand rejected under 35 U.S.C § 102(e) as being anticipated by Sanchez *et al.* (U.S. Publication No. 2002/0147857 A1). Claims of the present application claim methods, systems, and products for data processing for objects with unknown data structures that include receiving a processing request for a business object having an unknown business object data structure, wherein data for the business object is stored in a persistent data store having an unknown persistent data structure, inferring the persistent data structure from metadata describing the persistent data structure, and validating the business object data structure with respect to the persistent data structure. The Office Action, however, attempts to equate the LDAP repository of Sanchez with the persistent data store having an unknown persistent data structure as claimed in the present application. Sanchez, however, makes no mention of persistent data store having an unknown persistent data structure. Furthermore, Sanchez makes no mention of inferring the persistent data structure from metadata describing the persistent data structure, or validating the business object data structure with respect to the persistent data structure.

Claims 9, 19, and 29 stand rejected for obviousness under 35 U.S.C. § 103(a) as being unpatentable over Sanchez, *et al.* (U.S. Publication No. 2002/0147857 A1) in view Freund (U.S. Patent No. 5,680,618). The Office Action relies on the previous 35 U.S.C. § 102 rejection above to reject claims 9, 19, and 29. As such, the Office Action does not establish a prima facie case of obviousness.

DETAILED ANALYSIS:**CLAIM REJECTIONS—35 U.S.C. §102 OVER SANCHEZ**

Claims 1-8, 10-18, 20-28, and 30 stand rejected under 35 U.S.C § 102(e) as being anticipated by Sanchez, II *et al.* (U.S. Patent Publication No. US 2002/0147857 A1). To anticipate claims 1-8, 10-18, 20-28, and 30 under 35 U.S.C. § 102(e), two basic

requirements must be met. The first requirement of anticipation is that Sanchez must disclose each and every element as set forth in Applicant's claims. The second requirement of anticipation is that Sanchez must enable Applicant's claims. As explained below, Sanchez does not meet either requirement and therefore does not anticipate Applicant's claims. Applicant, therefore, respectfully traverses each rejection individually below and request reconsideration of claims 1-8, 10-18, 20-28, and 30.

Sanchez Does Not Disclose Each and Every Element
Of The Claims Of The Present Application

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Sanchez generally discloses a mechanism for mapping java objects onto a Lightweight Directory Access Protocol ("LDAP") repository that does not disclose each and every element of claim 1. Sanchez, therefore, cannot be said to anticipate the claims of the present application within the meaning of 35 U.S.C. § 102.

Independent claim 1 of the present application claims:

1. A method of data processing for objects with unknown data structures, the method comprising:

receiving a processing request for a business object having an unknown business object data structure, wherein

data for the business object is stored in a persistent data store having an unknown persistent data structure, and

the processing request includes a reference to the business object and a processing instruction;

inferring the business object data structure from metadata
describing the business object;

inferring the persistent data structure from metadata describing the
persistent data structure;

validating the business object data structure with respect to the
persistent data structure;

creating a data object structured according to the persistent data
structure;

transforming data values from the business object to the data
object; and

applying the processing instruction, with the data object, to the
persistent data store.

Sanchez Does Not Disclose Data For The Business Object Is Stored In
A Persistent Data Store Having An Unknown Persistent Data Structure

The first element of claim 1 includes the limitation “wherein data for the business object is stored in a persistent data store having an unknown persistent data structure....”

Regarding such a limitation in the first element of claim 1, the Office Action at page 3 states that Sanchez discloses:

‘data for the business object is stored in a persistent data store having an unknown persistent data structure’ as retrieving an object and the objects included attributes from a LDAP repository(0010).

That is, the Office Action takes the position that Sanchez at paragraph 0010 discloses the limitation “wherein data for the business object is stored in a persistent data store having

an unknown persistent data structure” in the first element of claim 1. Applicant respectfully notes in response, however, that what Sanchez at paragraph 0010 in fact discloses is:

Likewise, these and other advantages are achieved by a method for retrieving objects mapped onto a lightweight directory access protocol repository, comprising, requesting that an object be retrieved from a lightweight directory access protocol ("LDAP") repository, wherein the object includes attributes and is used in an object-oriented programming application, retrieving a list of persistent attributes from the object, wherein the persistent attributes are a subset of the attributes and the persistent attributes each comprise a persistent attribute value, determining a path, wherein the path identifies a location in the LDAP repository, retrieving the persistent attribute values from the location in the LDAP repository identified by the path, and setting the persistent attributes in the object with the retrieved persistent attribute values.

That is, Sanchez at paragraph 0010 discloses requesting that an object be retrieved from a LDAP repository and determining a path that identifies a location in the LDAP repository. Sanchez’s LDAP repository and determining a path that identifies a location in the LDAP repository are not a persistent data store having an unknown persistent data structure as claimed in the present application. Sanchez’s determining a path that identifies a location in the LDAP repository does not disclose anything related to the structure of the LDAP repository. In fact, nowhere does Sanchez at paragraph 0010 mention that the LDAP repository has an ‘unknown persistent data structure.’ Because Sanchez does not disclose each and every element and limitation of Applicant’s claims, Sanchez does not anticipate Applicant’s claims, and the rejections should be withdrawn.

Sanchez Does Not Disclose Inferring The Persistent Data Structure From Metadata Describing The Persistent Data Structure

The third element of claim 1 claims “inferring the persistent data structure from metadata describing the persistent data structure....” Regarding the third element of claim 1, the Office Action at page 3 states that Sanchez discloses:

inferring the persistent data structure from metadata describing the persistent data structure’ as determining attributes of the LDAP repository (0010).

That is, the Office Action takes the position that Sanchez at paragraph 0010 discloses the third element of claim 1. Applicant respectfully notes in response, however, that what Sanchez at paragraph 0010, in fact discloses is:

Likewise, these and other advantages are achieved by a method for retrieving objects mapped onto a lightweight directory access protocol repository, comprising, requesting that an object be retrieved from a lightweight directory access protocol ("LDAP") repository, wherein the object includes attributes and is used in an object-oriented programming application, retrieving a list of persistent attributes from the object, wherein the persistent attributes are a subset of the attributes and the persistent attributes each comprise a persistent attribute value, determining a path, wherein the path identifies a location in the LDAP repository, retrieving the persistent attribute values from the location in the LDAP repository identified by the path, and setting the persistent attributes in the object with the retrieved persistent attribute values.

That is, Sanchez at paragraph 0010 discloses requesting that an object be retrieved from a LDAP repository and determining a path that identifies a location in the LDAP repository. Sanchez's a LDAP repository and determining a path that identifies a location in the LDAP repository is not inferring the persistent data structure from metadata describing the persistent data structure as claimed in the present application. In fact, Sanchez at paragraph 0010 has nothing do with inferring the persistent data structure from metadata describing the persistent data structure. Sanchez at paragraph 0010 does not mention 'structure,' 'data structure,' 'inferring the persistent data structure,' 'metadata,' or 'inferring the persistent data structure from metadata describing the persistent data structure.' The absence of inferring the persistent data structure from metadata describing the persistent data structure from Sanchez at paragraph 0010 is, however, understandable. As explained above, nowhere does Sanchez at paragraph 0010, mention that the LDAP repository has an unknown persistent data structure. Unless the LDAP repository has an unknown data structure, there is no need for Sanchez to disclose inferring the persistent data structure from metadata describing the persistent data structure, which in fact Sanchez does not disclose. Because Sanchez does not disclose each and every element and limitation of Applicant's claims, Sanchez does not anticipate Applicant's claims, and the rejections should be withdrawn.

Sanchez Does Not Disclose Validating The Business Object
Data Structure With Respect To The Persistent Data Structure

The fourth element of claim 1 claims “validating the business object data structure with respect to the persistent data structure....” Regarding the fourth element of claim 1, the Office Action at page 3 states that Sanchez discloses:

‘validating the business object data structure with respect to the persistent data structure’ as mapping Java objects to corresponding LDAP attributes (0008).

That is, the Office Action takes the position that Sanchez at paragraph 0008 discloses the fourth element of claim 1. Applicant respectfully notes in response, however, that what Sanchez at paragraph 0008, in fact discloses is:

A method and apparatus for dynamically storing Java objects in a LDAP repository in a manner useable to other applications are disclosed. According to an embodiment of the invention, a persistent data manager maps certain persistent attributes of Java objects to corresponding LDAP attributes. The certain persistent attributes are preferably chosen as attributes that are of interest to other outside applications. The LDAP attributes are named with a syntax that easily identifies the attributes. The persistent data manager is preferably a software component that executes processes to dynamically determine the persistent attributes of the Java objects as well as the path or distinguished name ("dn") of the corresponding LDAP attributes. The persistent data manager also preferably uses reflection, a known Java technique, to determine the persistent attribute values. The persistent data manager preferably invokes the LDAP API(s) necessary, either directly or indirectly through a utility class, to read and write the persistent attribute values from and to the LDAP repository.

That is, Sanchez at paragraph 0008 discloses a persistent data manager that maps certain persistent attributes of Java objects to corresponding LDAP attributes. Sanchez’s persistent data manager that maps certain persistent attributes of Java objects to corresponding LDAP attributes is not validating the business object data structure with respect to the persistent data structure as claimed in the present application. Mapping persistent attributes of Java objects to corresponding LDAP attribute is the means by which the persistent data manager of Sanchez stores the persistent attributes in the LDAP

repository of Sanchez. *See* Sanchez at paragraph 30. Validating, however, includes determining that there exists a mapping from fields in the business object to fields in the persistent data store and is not disclosed by storing the persistent attributes or by the disclosure of the mappings themselves. The absence of validating the business object data structure with respect to the persistent data structure from Sanchez at paragraph 0008 is, however, understandable. As explained above, Sanchez does not disclose that the LDAP repository has an unknown persistent data structure. Unless the LDAP repository has an unknown data structure, there is no need for Sanchez to disclose validating the business object data structure with respect to the persistent data structure, which in fact Sanchez does not disclose. Because Sanchez does not disclose each and every element and limitation of Applicant's claims, Sanchez does not anticipate Applicant's claims, and the rejections should be withdrawn.

Relations Among Claims

Independent claim 1 claims method aspects of the present invention. Independent claims 11 and 21 respectively claim system and program product aspects of the present invention. Claim 1 is allowable for the reasons set forth above. Claims 11 and 21 are allowable because claim 1 is allowable. The rejections of claims 11 and 21 therefore should be withdrawn, and claims 11 and 21 should be allowed.

Claims 2-8 and 10 depend from independent claim 1. Claims 12-18 and 20 depend from independent claim 11. Claims 22-28 and 30 depend from independent claim 21. Each dependent claim includes all of the limitations of the independent claim from which it depends. Because Sanchez does not disclose or suggest each and every element of the independent claims, Sanchez cannot possibly disclose or suggest each and every element of any dependent claim. The rejections of claims 2-8, 10-18, 20, 22-28, and 30, therefore should be withdrawn, and these claims also should be allowed.

CLAIM REJECTIONS – 35 U.S.C. § 103

Claims 9, 19, and 29 stand rejected for obviousness under 35 U.S.C. § 103(a) as being unpatentable over Sanchez, *et al.* (U.S. Publication No. 2002/0147857 A1) in view of

Freud (U.S. Patent 5,680,618). To establish a prima facie case of obviousness, the proposed combination of Sanchez and Freund must teach or suggest all of the claim limitations of dependent claims 9, 19, and 29. *In re Royka*, 490 F.2d 981, 985, 180 USPQ 580, 583 (CCPA 1974). The Office Action relies on the previous 35 U.S.C. § 102 rejection above to reject claims 9, 19, and 29. As Applicant has demonstrated above, the Sanchez does not disclose each and every element of independent claims 1, 11, and 21. Dependent claims 9, 19, and 29 depend from independent claims 1, 11, and 21 respectively and include all of the limitations of the claims from which they depend. Because the proposed combination of Sanchez and Freund relies on the argument that the Sanchez discloses each and every element claims 1, 11, and 21, and because Sanchez does not disclose each and every element claims 1, 11, and 21, the proposed combination of Sanchez and Freund cannot teach or suggest all the claim limitations of claims 9, 19, and 29. The proposed combination of Sanchez and Freund, therefore, cannot establish a prima facie case of obviousness, and the rejections should be withdrawn.

CONCLUSION

Claims 1-8, 10-18, 20-28, and 30 stand rejected under 35 U.S.C § 102(e) as being anticipated by Sanchez *et al.* (U.S. Publication No. 2002/0147857 A1). As explained above, Sanchez does not disclose each and every element of Applicant's claims and does not enable Applicant's claims. Sanchez therefore does not anticipate Applicant's claims. Claims 1-8, 10-18, 20-28, and 30 are therefore patentable and should be allowed. Applicant respectfully request reconsideration of claims 1-8, 10-18, 20-28, and 30 in light of the present remarks is respectfully requested.

Claims 9, 19, and 29 stand rejected for obviousness under 35 U.S.C. § 103(a) as being unpatentable over Sanchez, *et al.* (U.S. Publication No. 2002/0147857 A1) in view Freund (U.S. Patent No. 5,680,618). For the reasons set forth above, however, the proposed combination of Sanchez and Freund fails to establish a prima facie case of obviousness. The rejection of claims 9, 19, and 29 should therefore be withdrawn, and the claims should be allowed. Reconsideration of claims 9, 19, and 29 in light of the present remarks is respectfully requested.

The Commissioner is hereby authorized to charge or credit Deposit Account No. 09-0447 for any fees required or overpaid.

Respectfully submitted,

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